The MACS-007802-0M1RL6 is a K-Band Doppler transceiver consisting of a Gunn Diode oscillator and two Schottky barrier mixer Diodes assembled into a diecast waveguide package, designed for commercial applications where directional motion sensing is desired.

**ELECTRICAL SPECIFICATIONS**

- **Center Frequency:** 24.125 GHz ± 25 MHz
- **Output Power:** 4.5 mW min. @ 25°C  5.0mW Typical
- **Operating Voltage:** +5.0 Vdc
- **Operating Current:** 60mA min., 100mA max, at +25°C
- **Transceiver Sensitivity:** (Note 1) -90dBc minimum 10Hz to 1000Hz
- **Transceiver Noise:** (Note 1) 5.0 Micro Volts maximum 10Hz to 1000Hz
- **Mixer Phasing** (Phase difference of I.F. output signals) 50° to 120° (non-adjustable)
- **Mixer Load Resistor:** (DC Return) 1000 ohms recommended (Not supplied)
- **Frequency Drift vs. Temperature Change:** 1MHz/deg.C maximum
- **Operating Temperature Range:** -30°C to +70°C, ambient

**MECHANICAL SPECIFICATIONS**

- **D.C. Bias (Gunn):** Solder Pin
- **Mixer Output** Solder Pin
- **R.F. Output** WR-42 waveguide mates with UR-595/U flange
- **RoHS Status:** Compliant

**NOTES**

1. When tested on designated M/A-COM Test Stand. Received signal is derived from a calibrated stimulus on the test stand.

2. Part is a direct replacement of M/A-COM Part Number MA86843-L06. This replacement is for RoHS compliancy and the form, fit and function of the end product has not changed. The conversion coatings were changed to meet RoHS standards. A new part number has been assigned to this product to track RoHS compliancy. Due to the length of the new part number a modified or reduced number will be put on the label. See Outline Drawing for modified part Number.